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Indian Standard
SIZES AND SHAPES FOR FIREBRICKS (230 mm SERIES)

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 2 *June* 1960

Indian Standard
SIZES AND SHAPES FOR FIREBRICKS
(230 mm SERIES)

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Indian Standard

SIZES AND SHAPES FOR FIREBRICKS
(230 mm SERIES)

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 20 May 1960, after the draft finalized by the Refractories Sectional Committee had been approved by the Structural and Metals Division Council.

0.2 The question of formulation of an Indian Standard on sizes and shapes for firebricks has been engaging the attention of the Refractories Sectional Committee of ISI for a long time. The Committee realized that wasteful variety of products should be reduced by simplification and that a national standard for sizes and shapes of firebricks should be laid down. Considerable work has been done in other countries with regard to rationalization and standardization of shapes and sizes of refractories. The need for dimensional standardization for refractories in this country has assumed greater importance in view of the large programme of industrial expansion anticipated during the next few years and also because of the decision of the Government of India to change over to the metric system.

0.3 This Indian Standard has been formulated with a view to assisting the industry in changing over to the metric system and also to prescribe standard sizes and shapes for refractories bricks.

0.4 This Indian Standard covers firebricks corresponding to the existing 9 in series. Indian Standards for sizes and shapes of 300 mm (or 12 in) and higher series of firebricks and for silica bricks are under preparation.

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1. SCOPE

1.1 This standard specifies nominal sizes and shapes for firebricks of 230 mm series. This standard is limited to those shapes which are mostly used in the steel plants and those which are common to several other industries.

2. TERMINOLOGY

2.1 The names given to the various shapes are those which are commonly used in the refractories industry and are indicated under the respective figures (*see* Fig. 1 to 9 on P 6).

3. SIZES

3.1 The sizes in metric units of firebricks shall comply with the nominal dimensions given in Table I, read with Fig. 1 to 9.

NOTE — Sizes of firebricks in inch units at present used in the country are given in Appendix A. These sizes are expected to go out of use gradually.

TABLE I SIZES AND SHAPES OF FIREBRICKS

(All dimensions in millimetres)

NAME OF BRICK	a	b	c	d
Standard (*see* Fig. 1)	230	113	65	—
	230	171	65	—
	230	113	75	—
	230	150	75	—
	230	171	75	—
	230	230	75	—
Arch (*see* Fig. 2):				
No. 1	230	113	65	55
	230	113	75	70
	230	150	75	70
	230	171	75	70
No. 2	230	113	65	45
	230	113	75	65
	230	150	75	65
	230	171	75	65
No. 3	230	113	65	25
	230	113	75	50
Wedge (*see* Fig. 3):				
No. 1	230	113	65	45
	230	113	65	55
	230	113	75	70
	230	150	75	70
	230	171	75	70
	230	230	75	70
	230	171	65	55
	230	171	65	45
No. 2	230	113	65	40
	230	113	75	65
	230	150	75	65
	230	171	75	65
	230	230	75	65
	230	171	65	40
No. 3	230	113	75	50
	230	150	75	50
	230	171	70	50

(*Continued*)

TABLE I SIZES AND SHAPES OF FIREBRICKS—*Contd*

NAME OF BRICK	a	b	c	d
Key (*see* Fig. 4):				
No. 1	230	113	102	65
	230	113	100	75
	230	150	135	75
	230	230	205	75
No. 2	230	113	90	65
	230	113	90	75
	230	150	120	75
No. 3	230	113	75	75
	230	150	75	75
Side Skew (*see* Fig. 5)	230	113	57	75
	230	113	70	75
End Skew (*see* Fig. 6)	230	174	113	75
	230	185	113	75
Side Feather (feather edge) (*see* Fig. 7)	230	113	75	4
End Feather (neck brick) (*see* Fig. 8)	230	113	75	6
Split (*see* Fig. 9):				
No. 1	230	113	50	—
	230	150	50	—
	230	171	50	—
No. 2	230	113	40	—
	230	150	40	—
	230	171	40	—
No. 3	230	113	30	—
No. 4	230	150	65	—
	230	171	65	—

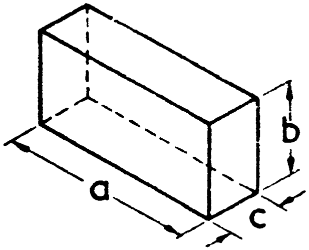

FIG. 1 STANDARD

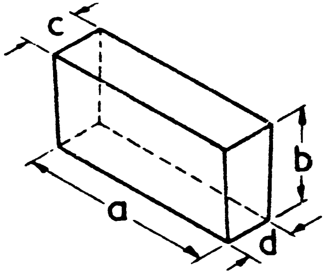

FIG. 2 ARCH

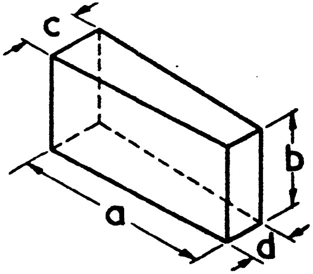

FIG. 3 WEDGE

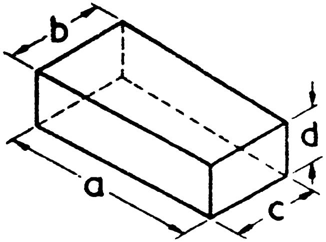

FIG. 4 KEY

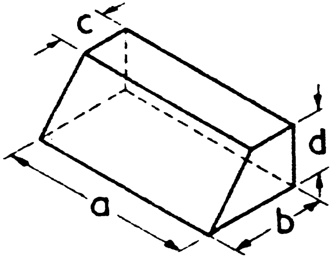

FIG. 5 SIDE SKEW

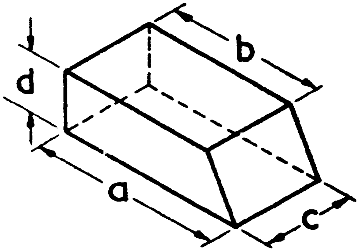

FIG. 6 END SKEW

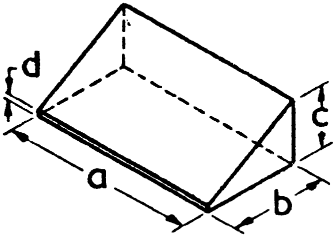

FIG. 7 SIDE FEATHER
(FEATHER EDGE)

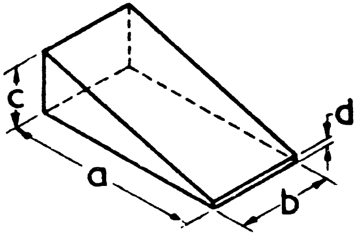

FIG. 8 END FEATHER
(NECK BRICK)

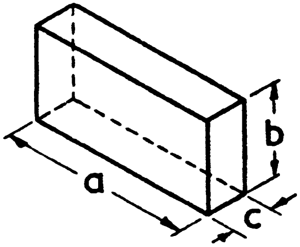

FIG. 9 SPLIT

APPENDIX A

(*Note under Clause* 3.1)

EXISTING SIZES AND SHAPES OF FIREBRICKS

(All dimensions in inches)

NAME OF BRICK	a	b	c	d
Standard (*see* Fig. 1)				
	9	4½	2½	—
	9	6¾	2½	—
	9	4½	3	—
	9	6	3	—
	9	6¾	3	—
	9	9	3	—
Arch (*see* Fig. 2):				
No. 1	9	4½	2½	2⅛
	9	4½	3	2⅝
	9	6	3	2⅝
No. 2	9	4½	2½	1¾
	9	4½	3	2¼
	9	6	3	2¼
	9	6¾	3	2½
No. 3	9	4½	2½	1
	9	4½	3	2
Wedge (*see* Fig. 3):				
No. 1	9	4½	2½	1⅞
	9	4½	2½	2¼
	9	4½	3	2¾
	9	6	3	2¾
	9	6¾	3	2¾
	9	9	3	2¾
	9	6¾	2½	2¼
	9	6¾	2½	1⅞
No. 2	9	4½	2½	1½
	9	4½	3	2¼
	9	6	3	2¼
	9	6¾	3	2¼
	9	9	3	2¼
	9	6¾	2½	1½
No. 3	9	4½	3	2
	9	6	3	2
	9	6¾	3	2

(*Continued*)

EXISTING SIZES AND SHAPES OF FIREBRICKS—*Contd*

NAME OF BRICK	a	b	c	d
Key (*see* Fig. 4): No. 1	9	4½	4	2½
	9	4½	4	3
	9	6	5⅝	3
	9	9	8	3
No. 2	9	4½	3½	2½
	9	4½	3½	3
	9	6	$4\frac{13}{16}$	3
No. 3	9	4½	3	3
	9	6	3	3
Side Skew (*see* Fig. 5)	9	4½	2¼	3
	9	4½	2¾	3
End Skew (*see* Fig. 6)	9	6¾	4½	3
	9	7¼	4½	3
Side Feather (feather edge) (*see* Fig. 7)	9	4½	3	⅛
End Feather (neck brick) (*see* Fig. 8)	9	4½	3	¼
Split (*see* Fig. 9): No. 1	9	4½	2	—
	9	6	2½	—
	9	6¾	2	—
No. 2	9	4½	1½	—
	9	6	1½	—
	9	6¾	1½	—
No. 3	9	4½	1¼	—
No. 4	9	6	2½	—
	9	6¾	2½	—

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